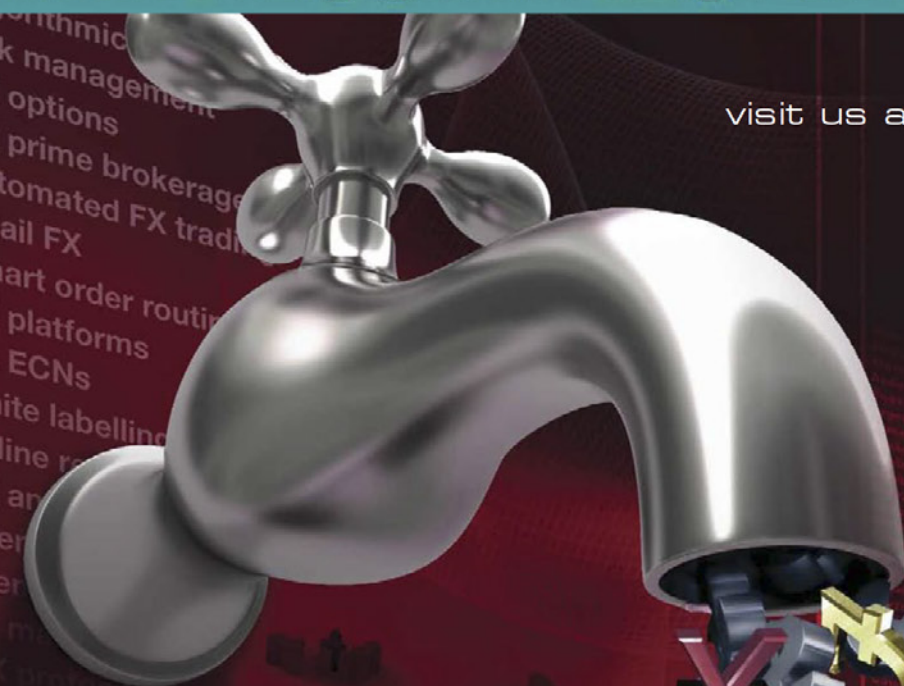


# e-FOREX

transforming global foreign exchange markets

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## eNDFs

- extending automation to Non-Deliverable Forwards

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- impact analysis on Algo FX strategy distribution

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# JDFX – Talkin' bout a Revolution?

We review Kontrol, the JDFX new back-end risk management software aimed primarily at the Retail FX broker; And ITP, it's Institutional Trading Platform. e-FOREX spent over a week at the JDFX offices located in central Zurich evaluating their software and IT infrastructure.



James D. Pieron, CEO

JDFX appears to have identified two serious gaps in the FX market and has filled them with two innovative new products.

On the Risk Management side, JDFX offers a solution simply called "Kontrol". It is aimed primarily at the Retail FX broker but could equally benefit firms with multiple FX money managers or trading groups.

On the FX Trading side, JDFX offers a front-end trading platform called "ITP" which guarantees fills at best-price from a back-end core of Tier-I banks.

JDFX CEO, James D. Pieron, has a simple, direct vision regarding risk management, and an exceptional understanding of the internal dynamics and technical mechanics of FX fulfillment. Pieron, from

Michigan, founded JDFX in 2004 after coming to Switzerland two years earlier to consult for UBS. JDFX initially concentrated on high frequency trading algorithms, but in 2006, decided to focus entirely on its core strength - technology.

## JDFX Core

All JDFX products are connected to a sub-millisecond best-price order routing system called the JDFX Core. The Core is fed exclusively by Tier-I banks and JDFX appears to be very concerned about the source and quality of their liquidity.

Pieron talks about ECN's: "JDFX does not deal with ECN's. Most ECN participants

re-route flow back to the Tier-I banks with whom they are dealing anyway. This is inefficient and in some cases results in a bank being double hit for the same order.

Routing orders at best-price can save an institution millions, but clever automation needs to respect the banks and the market place.

Our algorithms route all orders that would not have a market impact using best-price and splitting methodologies.

However if an order size would result in a market impact, then our algorithms still choose best-price, but route the entire order to a single liquidity provider," states Pieron. "Splitting large orders only results in short-term gain and ultimately causes the banks to widen their spreads resulting in a long-term loss and a disservice to our institutional clients."

## Kontrol

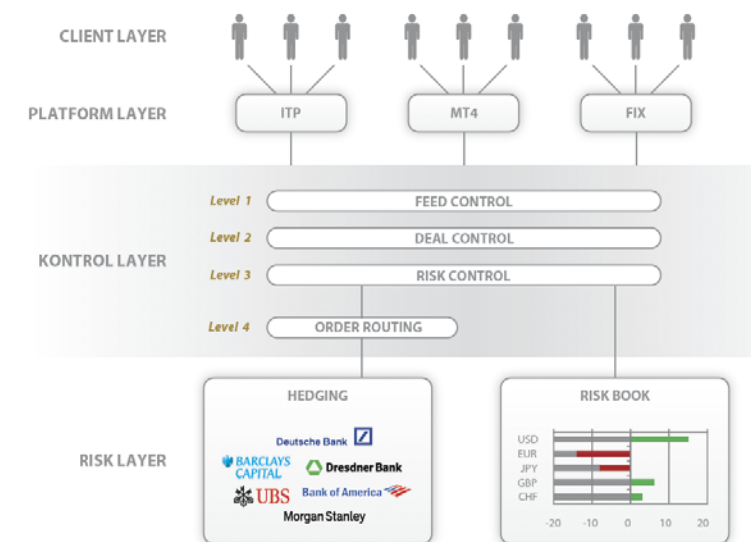
Kontrol is a complete risk management solution for Retail FX brokers, FX money managers, and/or FX trading groups.

Kontrol takes incoming flows from multiple server front-ends, aggregates the net exposure, and optionally hedges the specified risk to Tier-I banks at best-price. Kontrol offers an overall solution for feed and spread control, automated dealing, intelligent hedging, and custom reporting for regulatory requirements. The software is currently in the final stages of beta testing following a two year development cycle.

*This software may mark the start of a new era in terms of a Retail FX broker's ability to control risk. We at e-FOREX have yet to see anything in the market that currently addresses what this product does.*

## Connectivity

Kontrol offers connectivity to FIX compliant front-ends and additionally has a built-in



Kontrol Overview

MT4 Server Module which, as far as we know, is the first fully functional and stable MT4 bridge on the market.

## Feed & Spread Control

Kontrol allows the seamless management of feeds and spread control. "Broker spreads and pricing controls are easily managed by the broker at the enterprise level by setting up global pricing profiles and pricing groups," says Pieron.

The base feed consists of the best-price aggregation of Tier-I banks. The outgoing server feeders allow the broker to control mark-ups and spreads in real-time. Feeders are fully configurable using global profiles with spreads changed on the fly at the top level.

In addition, the base feed has spike detection and filtration algorithms – something JDFX appears to take very seriously.

## Automated Dealing Desk

Kontrol is a fully automated dealing desk system, confirming current industry trends.

"Manual dealing desks are inefficient, unreliable, less profitable, promote bad customer service, create internal loss prevention problems... I could go on..." equivocates Pieron.

In contrast, "Kontrol will confirm, reject, or re-quote trade requests in less than 100 milliseconds. It is reliable, efficient, and provides a high quality of service to the end client/trader," says Pieron.

Kontrol automatically scores each client according to their trading patterns. Scoring is done in real-time and "the system will start to re-quote clients who repeatedly attempt to hit the broker off-market," remarks Pieron.



## PRODUCT REVIEW

The screenshot displays the Kontrol software interface. The main window shows a list of currency pairs (Symbol, Provider, Bid, Provider, Ask, Spread, Age) with various currency pairs like AUD/CAD, AUD/CHF, AUD/JPY, etc. A 'Feed Control' window is open, showing a tree view of 'Global Profiles' and 'Last Modified' dates. The 'Feed Control' window has tabs for 'New', 'Copy', and 'Delete'. Below the main window, there are buttons for 'Add', 'Remove', 'Price Shift', 'Min Spread', 'Max Spread', and 'Add Spread'.

Feed Control

"The days of switching-off a client are over. A broker should give their clients every opportunity to enter the market. Kontrol works in real-time and allows clients to work themselves out of the penalty box by trading in a friendlier and on-market manner," he adds.

## Risk Control

Kontrol facilitates instant real-time hedging of individual clients, servers, groups, or the entire aggregated exposure across all incoming streams by currency.

Pieron gives us a practical example:

"One forex broker we are bringing on is currently

running 12 different front-end trading platforms that are all individually hedged directly to ECNs – so effectively they are running 12 separate books.

First, they're smart to run multiple platforms. In order to survive in a competitive market, they cannot afford to turn down clients by limiting their trading platforms. Second, they are still making a decent margin.

However, look at the money they're throwing out because they have 12 platforms that are individually hedging. It is frequently the case that one platform is short and the other is long in the same currency, and they're hedging them both out and paying the spread twice. Brokers should be careful about getting caught up in the "if it ain't broke don't fix it" mentality. Markets will become more efficient and competitors and technology will tighten

spreads. Brokers should remain in a constant state of optimizing their business and improving their margins," warns Pieron.

## Discretionary Client Bucketing

"Often brokers insist on dicing their customers into different groups and different servers – hedging some of them while taking the risk on others. They are constantly adjusting and tweaking them trying to increase profits and reduce risk. Ultimately this practice is inefficient and these inefficiencies cost money and put the broker at risk," says Pieron.

## Intelligent Hedging

Kontrol hedges overall currency exposure – not individual currency pair exposure.

"Reducing exposure by currency pair is inefficient and costs the broker money," says Clive Diethelm, JDFX Chief Technology Officer.

"Consider a simple example," he continues.

"A broker is running the risk book below with a hedging limit set at 1 million on each currency pair:

EUR/USD	-800,000
EUR/CHF	800,000
USD/CHF	-1,100,000

The brokers book is effectively flat. However, since the USD/CHF exposure exceeds the limit, the brokers hedging software goes out to market and hedges the pair. In short, the broker just paid spread to create

USD/CHF exposure where there was none.

Kontrol ensures that the broker hedges only what is necessary using the most inexpensive route available."

## Regulatory Risk

With an increasing regulatory emphasis in G10 jurisdictions on FX brokerage, capital requirements and real time risk control have become increasingly important.

"Brokers calculating risk several times a day from multiple servers using, for example, Excel spreadsheet macros, are running very real risks," says Pieron.

"Lack of risk control has already sunk a number of large forex brokers as well as the fact that they continue to lose money every minute they lack real time aggregated and intelligent hedging. Regulators are far more likely to be comfortable



Clive Diethelm, CTO

when they know that the broker has the technology to identify risk and manage risk accurately, reliably, and in real time," he adds.

We asked Diethelm to highlight an example of Kontrol working in a fund environment:

The screenshot displays the Kontrol software interface showing risk control data. It includes a table titled 'Exposure at Bank' with columns for Exposure, Net Profit, Currency, Size (USD), Size %, and Relative Size. The table shows data for AUD, CAD, CHF, EUR, and GBP. Below the table, there are several charts and graphs showing risk control data, including a 'Risk Control' chart and a 'Risk Control' table.

Risk Control



## PRODUCT REVIEW



ITP

"Funds have similar problems to brokers," says Diethelm. "That is, their risk is being managed based on daily P&L rather than by aggregated real-time exposure. For that reason, FX Funds are a good example of who would benefit from our Institutional Trading Platform (ITP) and Kontrol working together.

By plugging ITP into Kontrol, advisors and traders benefit from best-price execution which increases their bottom line performance. The parent fund benefits by having real time NAV, controlling their exposure, and monitoring all their advisors in real time," highlights Diethelm.

## ITP

ITP is the JDFX front-end trading platform. The Java based system has a very sharp look and feel to it, but essentially seems to offer the same type of functionality as other FX front-ends.

On the ITP back-end however, we found the JDFX Core - a powerful best-price execution engine and order routing system with direct connectivity to many of the large FX players.

## Performance

"The performance of a trader and/or fund is determined by both strategy and execution - one is no more important than the other - depending on trade

frequency and leverage, bad execution can cost thousands of basis points in EOY performance.

One fund now executing via ITP claims an average savings of around \$250,000 per week, or \$12 million a year," says Pieron.

We spoke to Clive Diethelm about ITP's latency and execution and he gave us some actual examples of ITP's execution performance:

"First I will demonstrate a live \$10 million EURUSD order. The order executed at 0.9 pips spread and used three banks to get the job done. Trading time was approximately 120 milliseconds.

Let's take a larger example of a live 50 million EURUSD order. In this case our algorithm determined that the trade size would have an impact on the market. For that reason, the JDFX Core switched liquidity bands on the fly and gave the entire amount to the bank with the best-price on the 50 million liquidity band, which in this case, was Deutsche Bank. Trading time was approximately 75 milliseconds."

## Transparency

ITP customers' trades are fully transparent. Each order is routed directly to their Prime Broker and/or bank account using STP (Straight Through Processing). ITP customers can verify orders, trades, and rate reference ID's via their own bank statement.

"Institutional customers have no desire to deposit margin with a middleman. With ITP, they are dealing direct with the banks via our platform and an end of day give-up," says Pieron.

## JDFX IT Infrastructure

Currently JDFX has redundant servers in Zurich and London, with New York and Singapore to be added shortly.

Each data center is capable of handling the entire load itself and is connected independently to the Tier-I banks in its corresponding jurisdiction.

Apart from redundancy, the function of multiple locations is to reduce latency. "By positioning our servers close to the banks we are dealing with, we can often save hundreds of milliseconds in latency and give the banks better flows and our clients better execution," states Diethelm.

## Conclusion

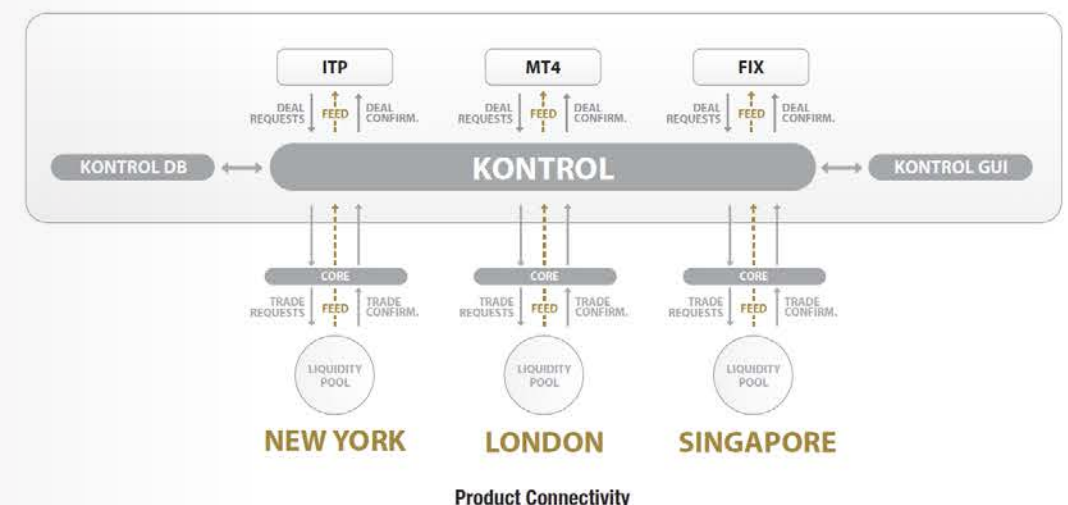
Around 20 people work at JDFX Technologies AG today. Most of these people are techies, some of them shareholders. The corporate culture is serious but casual, lending itself to innovation.

Our guess is that JDFX will grow rapidly if the take up on the JDFX products grows as the company expects.

ITP fills a gap in the market, perhaps creating "a third way." Instead of dealing either via an ECN or with a single bank, ITP provides a ready interface to parcel out trades at size, and at best-price, direct to banks.

The Kontrol solution offers not only the promise of superior, real-time risk control but also increased profitability. In fact, both packages arguably increase profitability and this appears to be their strongest appeal.

Finally, Pieron appears to appreciate the vital importance of keeping banks and dealing customers happy at the same time. This is the basis on which JDFX operates. It simply has to operate this way, as the success of the system depends ultimately on the goodwill of its participants.





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